

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 23 JAN 2006

WIPO

PCT

Applicant's or agent's file reference 155609.1/Le/sm	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/EP2004/050981	International filing date (day/month/year) 01.06.2004	Priority date (day/month/year) 26.02.2004	
International Patent Classification (IPC) or national classification and IPC G01W1/10			
Applicant SWISS REINSURANCE COMPANY et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 12.11.2004		Date of completion of this report 24.01.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Passier, M Telephone No. +31 70 340-	



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/050981

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-18 as originally filed

Claims, Numbers

1-34 as originally filed

Drawings, Sheets

1/22-22/22 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/050981

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-34
	No: Claims	
Inventive step (IS)	Yes: Claims	1-34
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-34
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/EP2004/050981

Re Item V

1. Prior Art

The following documents are referred to:

D1: "Estimating Probabilities of Tropical Cyclone Surface Winds", M. DeMaria

D2: "An Updated Statistical Hurricane Intensity Prediction Scheme (SHIPS) for the Atlantic and Eastern North Pacific Basins", M DeMaria and J. Kaplan

2. Novelty and Inventive Step (Article 33(1),(2),(3) PCT)

1. For the following reasons, the subject-matter of **claims 1-34** is novel and involves an inventive step:

2. Document **D1** is considered as the closest state of the art. This document describes Monte Carlo generations of cyclone paths and intensities resulting in probabilities of occurrence of a specific wind strength for a given location and time.

3. If properly understood (see **Re Item VIII** below), the present invention as it is defined in the independent **claims 1, 33 and 34** essentially differs from **D1** in that a subset of alternative storm tracks is selected based on climatology. This solves the problem of obtaining a more realistic forecast while reducing the necessary computation power. Since neither **D1** nor **D2** discloses the selection of such a subset, **claims 1, 33 and 34** are new and involve an inventive step.

4. **Claims 2-32** are dependent on **claim 1** and as such also meet the requirements of the PCT with respect to novelty and inventive step.

3. Industrial Applicability (Article 33(1),(4) PCT)

The subject-matter of **claims 1-34** is industrially applicable.

Re Item VIII

Article 6 PCT (Clarity)

1. **Claims 1, 33 and 34** are unclear, because they are inconsistent with the contents of the description and the drawings. This inconsistency casts doubt on the matter for which protection is sought. In particular, this concerns l.26-30 of **claim 1** and l.20-25 of **claim 33**. To be consistent with the contents of the description and the drawings, these parts of the claims should correspond to block 20 of fig.1, p.9,l.15,16 and p.13,l.19-34 of the description. However, this meaning is not directly and unambiguously clear from the wording of the claims.

INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)

International application No.

PCT/EP2004/050981

2. If the claims would be amended to include a selection based on climatological data, it would be unclear how such a selection would be made.
3. It is further unclear what is meant with "new or accumulated data" in **claim 1** (l.29,30) and **claim 33** (l.24).
4. It is clear from figs.1, 5 and 11 and from p.4,l.27,28, p.12,l.27-p.13,l.18 and p.16,l.5-p.17,l.34 of the description that a second Monte Carlo module to produce new intensity data (APE or alternative pressure evolution) is essential to the definition of the invention. Since independent **claim 33** does not contain this feature it does not meet the requirement following from A.6 PCT taken in combination with R.6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.
4. In **claim 34** it is unclear which neural networks are meant. The application does not seem to deal with neural networks.

Other

1. The relevant background art disclosed in **D1** is not mentioned in the description, nor is this document identified therein (R.5.1(a)(ii) PCT).
2. The features of the claims are not provided with reference signs placed in parentheses (R.6.2(b) PCT).